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NON LINEAR EFFECTS OF SPACED DISTRIBUTION OF AEROSOLS IN TURBULENT ATMOSPHERE .

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KEYWORDS
climate, acrosols, atmospheric dynamics

METHODS

The physical model of the distribution of aerosols as suspended particles in the turbulent atmosphere are obtained earlier (G.M.Teptin and K.V.Morozova, 1989).This model descibed the main climatic effects of aerosols (seasonal variations of suspended particles for diffent sizes). R.H.Fachrtdinov and G.M.Teptin (1992) showed the non linear effects in the atmospheric oscillations.

As a result of non linear interections in the atmosphere new atmospheric oscillations are generated. These oscillations have spaced variations. In this paper the calulations of aerosol consentrations on the base of physical model of the distribution of suspended particles in the turbulent atmosphere taking into account non linear atmospheric effects are given.

RESULTS

The calculations of the consentrations of the suspended particles for the Nothen hemesphere with latitude and longitude are made for different monthes and seasons. The total consentration is colculated by

$$N_o = Q \left\{ R_1 \exp \left[5 \left[lg\, r_o + 2{,}5\, \sigma^2 \right] \right] \left[\Phi\,(U_2) - \Phi\,(U_1) \right] \right\}^{-1}$$